REMARKS

The following remarks are submitted to address the above amendments and issues raised in the Official Action mailed March 9, 2005.

A Request for Extension of Time, and payment therefor, to extend the period for filing a response to this Official Action for three months to September 9, 2005, is filed herewith.

Upon entry of the foregoing amendments, claims 1-76 are now pending in this application. Non-elected claims 1-43, 48, 50, 51, 56, 58, 59, 64, 66, and 67 stand withdrawn from consideration. Claims 44-47, 49, 52-55, 57, 60-63, and 65 stand rejected under 35 USC § 103(a), as being unpatentable over EP 0581274 to Kamata et al. in view of EP 0436729 to Yamato et al. New claims 68-76 had been added herein.

No new matter has been added. Support for requested amendments can be found in the original claims and throughout the present specification and drawings. Applicant respectfully requests consideration of the application in light of the above amendments and the following remarks.

Claims 44-47, 49, 52-55, 57, 60-63, and 65 — 35 USC § 103(a)

The rejections of claims 44-47, 49, 52-55, 57, 60-63, and 65 under 35 USC § 103(a) as being unpatentable over Kamata et al. in view of Yamato et al. are respectfully traversed.

Claims

Claim 44 of the present invention claims "[a] textile material having microcapsules applied thereto, the microcapsules applied to the textile material by: placing the microcapsules in a water bath; contacting the textile material with the microcapsules in the water bath; followed by dispersing the microcapsules around and through the textile material with a dispersant; and

then followed by adhering the dispersed microcapsules to the textile material with a binder, wherein the microcapsules are evenly distributed around and through the textile material so as to be evenly applied to the textile material." (Claim 44, as amended.)

Claim 52 of the present invention claims "[a] textile material having microcapsules applied thereto, the microcapsules applied to the textile material by sequential steps comprising . . . physically dispersing the microcapsules in the bath to contact the textile material with the microcapsules; dispersing the microcapsules around and through the textile material with a silicone-based dispersant; . . . [and] adding a binder to the bath to adhere the dispersed microcapsules to the textile material . . . wherein the microcapsules are thoroughly dispersed and evenly applied to the textile material." (Claim 52, as amended.)

Claim 60 of the present invention claims "[a] textile material having microcapsules applied thereto, the microcapsules applied to the textile material by sequential steps comprising . . . stirring the bath for three minutes to physically disperse the microcapsules and contact the textile material with the microcapsules; dispersing the microcapsules around and through the textile material with a dispersant, the dispersant being a silicone finish having a cationic charge; . . .[and] adding an acrylic binder having a cationic charge to adhere the dispersed microcapsules to the textile material . . . wherein the microcapsules are thoroughly dispersed and evenly applied to the textile material." (Claim 60, as amended.)

Official Actions

The Official Action states that claims 44-47, 49, 52-55, 57, 60-63, and 65 are rejected as being unpatentable under 35 USC § 103(a) over Kamata et al. in view of Yamato et al. as set forth in para. 2 of the previous action. The previous Official Action, mailed on June 7, 2004, states that Kamata et al. discloses a textile material which may be formed into a garment and which is placed in a bath with microcapsules which contain a fragrance, and that the microcapsules are taken up by the fabric. The Official Action states that Kamata et al. differs from the claimed invention because Kamata et al. does not teach employing a binder to further

fix the microcapsules to the textile fabric, incorporating a moisturizer into the fabric, or that the textile is hosiery. The Official Action states that Yamato et al. teaches that *a small amount of a binder may be incorporated into the mixture comprising microcapsules* <u>*which are to be applied*</u> *to a fabric* and that the binder helps to adhere the microcapsules to the fabric. The Official Action states that it would have therefore been obvious to one of ordinary skill in the art, and one of ordinary skill in the art would have been motivated by the teaching of Yamato et al., to employ a binder in applying the microcapsules to the fabric of Kamata et al. to further enhance the bonding of the microcapsules and the fabric. (Official Action, June 7, 2004, para. 2, emphasis added.)

The Official Action states that Yamato et al. teaches that microcapsules which are applied to a fabric such as a garment may comprise moisturizers and other skin conditioning agents in addition to fragrant components, and that suitable garments to which such microcapsules could be applied include hosiery. The Official Action states that it would therefore have been obvious to have incorporated a moisturizer in addition to a fragrance in the microcapsules of Kamata et al. and to have applied the microcapsules to hosiery as taught by Yamato et al., motivated by the expectation that doing so would enhance the fabric of Kamata et al. by making it moisturizing in addition to being fragrant, and because Yamato et al. teaches that since hosiery is in direct contact with skin, the fragrant, moisturizing microcapsules would be most effective. (Official Action, June 7, 2004, para. 2.)

The Official Action states that with regard to the process limitations and the order of steps claimed, product-by-process claims are not limited to the manipulations of the recited steps, only the structure implied by the steps; that even though product-by-process claims are limited by and defined by the process, determination of patentablility is based on the product itself and not on the method of production; and that if the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. The Official Action states that once the examiner provides a rationale tending to show that the claimed product appears to be the

same or similar to that of the prior art, although produced by a different process, the burden shifts to the Applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. (Official Action, June 7, 2004, para. 2.)

The Official Action states that Kamata et al. teaches that the microcapsules should be dispersed into the solution and applied to the textile so that the textile takes up all of the solution including the microcapsules, and therefore, Kamata et al. teaches that the microcapsules should be fully adsorbed by the fabric. (Official Action, June 7, 2004, para. 3.)

The Official Action, mailed March 9, 2005, states that the Declaration of Harris filed on December 2, 2004, is insufficient to overcome this rejection because it fails to set forth a sufficient number of tests; it fails to show that the difference between the samples tested is significant and consistent from test to test; the amounts of the various components are not specified; and it is not shown that the differences would be consistent regardless of the relative amounts, materials used, etc. (Official Action, March 9, 2005, para. 4.)

The Official Action states that in the Declaration of Harris, it states that there was a greater number of microcapsules, but does not provide data regarding the distribution and penetration of the microcapsules; it is not clear how this measurement was made, or what the values were for the inventive sample and the prior art sample; and where the microcapsules observed on both the prior art fabric and the inventive fabric were located is not set forth. (Official Action, March 9, 2005, para. 5.)

The Official Action states that it would be helpful for Applicant to show that the difference in the quantity of the microcapsules is significant and that the results of the test can be reliably replicated; to compare the penetration of the two samples quantitatively, to show that the difference is significant, and to show that the result can be reliably replicated; and to show that the amounts of each of the microcapsules and binder do not matter to the inventive fabric always

having more microcapsules and greater penetration of microcapsules that the prior art fabric. (Official Action, March 9, 2005, para. 5.)

The Official Action states that the claims do not recite where the microcapsules are distributed other than around and through the textile material, that Kamata et al. does not disclose how the textile material takes up the microcapsules or how they are distributed within the textile, and that it is reasonable to presume that the microcapsules would be found both within and on the surface of the fabric. (Official Action, March 9, 2005, para. 5.)

Applicant Remarks

In the Official Action mailed June 7, 2004, the examiner asserts that once the examiner provides a rationale tending to show that a claimed product appears to be the same or similar to that of the prior art, although produced by a different process, the burden shifts to the Applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. Even though the examiner bears a lesser burden of proof in making out a *prima facie* case of obviousness for a "product-by-process" claim, it remains upon the examiner to advance evidence that the prior art reference product reasonably appears to be either identical with or only slightly different than the claimed product which is produced by the recited process. *Ex parte* Kung, 17 USPQ2d 1545, 1548 (Bd. Pat. App. & Int'f 1990). Applicant respectfully submits that a product produced by a process disclosed or suggested by Kamata et al. and Yamato et al. does not reasonably appear to be either identical with or only slightly different than the claimed product produced by the recited process.

As pointed out in the Declaration of inventor Larry Harris, submitted on December 2, 2004, a textile material of the present invention is a different product as compared to products made by a prior art process, including a process derived from combining the teachings of Kamata et al. and Yamoto et al. In particular, inspection of pantyhose garments having microcapsules introduced in the presence of a binder, as in the combination process of Kamata et al. and Yamato et al., showed *less than 100* microcapsules in each of three microscope field viewing areas observed. In

contrast, inspection of pantyhose having microcapsules applied first without a binder, followed by dispersing with a dispersant, and then adding a binder, as in the present invention, showed *150 or more* microcapsules in each of three microscope field viewing areas observed. (*See* Declaration of Harris, para. 6.) Therefore, a product made by a process of the present invention is a different, non-obvious product as compared to products made by the combination process of Kamata et al. and Yamato et al.

With respect to the question of a sufficient number of tests reported in the Declaration of Harris, Applicant respectfully submits that at least four separate readings were taken in two separate tests for each of comparative materials — at least one reading for each material at the time of the invention and three readings for each material in September 2004. In each instance, these readings show a greater number of microcapsules adhered to a textile material made according to a process of the present invention than adhered to a textile material made according to a process as taught by Kamata et al. and Yamato et al. This number of tests was sufficient for the Applicant to make a significant investment in making and commercializing improved products made according to a process of the present invention, which had not been done previously.

With respect to the question of a significant difference between the samples tested as reported in the Declaration of Harris, in the testing performed at the time of the invention, 70-120 microcapsules were found per microscope field viewing area in a product made by the prior art process, and 175-200 microcapsules were found per microscope field viewing area in a product made by the present invention process. In the testing performed in September 2004, less than 100 microcapsules were found per microscope field viewing area in a product made by the prior art process, and 150 or more microcapsules were found per microscope field viewing area in a product made by the present invention process. Thus, in the testing performed at the time of the invention, there was 67-150 percent more microcapsules found per microscope field viewing area in the present invention product than in the prior art product. In the testing performed in September 2004, there was at least 50 percent more microcapsules found per microscope field viewing area in the present invention product than in the prior art product. Applicant respectfully submits that the

differences in each testing of at least 50 percent more microcapsules per microscope field viewing area in the present invention products than in the prior art products represents a "significant difference." Moreover, when the microcapsules counts found in the sample microscope field viewing areas in each product is multiplied by the entire size of each sample product, the difference in the total number of microcapsules adhered to each sample product creates an even greater significance in terms of the noted advantages of the present invention product.

With respect to the question of these differences being consistent between tests, that is, that the test results can be reliably replicated, *in each sample site in each testing* — both at the time of the invention and in September 2004 — at least 50 percent more microcapsules were found per microscope field viewing area in the present invention products than in the prior art products. In each instance of testing, the same order of steps was utilized for applying microcapsules to the present invention product (microcapsules applied in the absence of a binder), and the same order of steps was utilized for applying microcapsules to the prior art product (microcapsules applied in the presence of a binder). Applicant respectfully submits that finding a greater than 50 percent difference in the number of microcapsules applied to the present invention products than to the prior art products in each test instance represents consistent results found in tests that were, in fact, reliably replicated.

With respect to the questions of data regarding the distribution and penetration of the microcapsules, how the measurements were made, where the microcapsules were observed, and the values for the present invention products and the prior art products, reference is made to the discussion above. In the Declaration of Harris, the entire ranges of the number of microcapsules, inclusive of individual measurements, observed for both the present invention products and the prior art products are given. In particular, in the testing performed at the time of the invention, 70-120 microcapsules were found per microscope field viewing area in a product made by the prior art process, and 175-200 microcapsules were found per microscope field viewing area in a product made by the present invention process. In the testing performed in September 2004, less than 100 microcapsules were found per microscope field viewing area in a product made by the prior art

process, and 150 or more microcapsules were found per microscope field viewing area in a product made by the present invention process. The Declaration of Harris indicates that the measurements were made by inspecting garments under a microscope and counting the number of microcapsules per microscope field viewing area. Thus, Applicant respectfully submits that the Declaration of Harris provides data regarding the distribution of microcapsules, how the measurements were made, where the microcapsules were observed, and the values for the present invention products and the prior art products.

The Official Action mailed June 7, 2004, states that Kamata et al. teaches that the microcapsules should be dispersed and applied so that all of the microcapsules are taken up, and the examiner asserts that the microcapsules *should be* fully adsorbed by the fabric (emphasis added). Neither Kamata et al. nor Yamato et al. disclose how the textile material takes up microcapsules. Kamata et al. does not disclose whether microcapsules are uniformly distributed on the surface of the textile product, penetrated in the spaces between the fibers, aggregated in unevenly distributed layers on the product, or distributed in some other fashion. Applicant respectfully submits that because the process disclosed by Kamata et al. and Yamato et al. teaches applying microcapsules to a textile material in the presence of a binder, and because it is known that such a process causes microcapsules to adhere to the first surface they contact, some, if not many, of the microcapsules in the Kamata et al./Yamato et al. process could be adsorbed to the walls of the treatment container. As a consequence, although all of the microcapsules in the Kamata et al./Yamato et al. process may be taken up from the treatment solution, all of the microcapsules may not have adsorbed on the textile material. Therefore, Applicant respectfully requests the examiner to provide a reference showing that all of the microcapsules taken up from a microcapsule-binder solution, as in the Kamata et al./Yamato et al. process, are adsorbed by the textile material being treated. In the absence of such a reference, Applicant respectfully submits that Kamata et al. and Yamato et al. fail to disclose or suggest a product made by a process of the present invention, as in claims 44, 52, and 60.

As demonstrated in the Declaration of Harris, the sequence of steps claimed in claims 44, 52, and 60 provides an improved textile material that unexpectedly and advantageously provides for more thorough and more even penetration of microcapsules around and through the textile material. This unexpected difference in a textile material made according to the present invention provides commercial advantages, including, adhered microcapsules that are less likely to "flake" away from the material, an excellent "hand," utilization of a much lower volume of microcapsules, and adherence of more microcapsules to the material for increased delivery of the microcapsule contents over a longer period of time. Accordingly, a textile material of the present invention is made by a process different than a combination of processes taught by these two references. Consequently, a textile material of the present invention is a different, non-obvious product as compared to products made by the combination process of Kamata et al. and Yamato et al. (*See* Declaration of Harris.) Therefore, Applicant respectfully submits that claims 44, 52, and 60 of the present invention are not obvious over Yamato et al. in view of Kamata et al.

In addition, neither Kamata et al. or Yamato et al. disclose or suggest such an unexpectedly different textile material made by the sequence of steps as in claims 44, 52, and 60, in combination with a moisturizer, a fragrance, and/or use in a hosiery garment as in the present invention. Claims 45-47 and 49 are dependent on claim 44; claims 53-55 and 57 are dependent upon claim 52; and claims 61-63 and 65 are dependent upon claim 60. Accordingly, none of claims 44-47, 49, 52-55, 57, 60-63, and 65 would have been obvious in view of these two references.

For all of these reasons, the Office is respectfully requested to withdraw the rejections of claims 44-47, 49, 52-55, 57, 60-63, and 65 under 35 USC § 103(a).

Claims 68-76

New claims 68-76 have been added herein to further clarify the subject matter of the invention.

CONCLUSION

Applicant submits that a full and complete response has been made herein to the Official Action and, as such, all pending claims in this application are now in condition for allowance. Therefore, Applicant respectfully requests early consideration of the present application, entry of all amendments herein requested, withdrawal of all rejections, and allowance of all pending claims.

The Office is respectfully invited to contact J. Michael Boggs at (336) 747-7536, to discuss any matter relating to this application.

Respectfully submitted,

9/7/05
Date

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